

Remarks

Applicants have carefully reviewed the Office Action mailed October 10, 2006 regarding the above-referenced patent application. Currently 1-27 are pending in the application and all pending claims have been rejected by the Examiner. Favorable reconsideration is respectfully requested in light of the following comments.

Applicants respectfully traverse the rejection of claims 1-27 under 35 U.S.C. §103(a) as unpatentable over McCoy, U.S. Patent Pub. No. US 2003/0234243 A1 in view of Flanagan, U.S. Patent No. 6,696,667 and further in view of Shedlov, U.S. Patent No. 6,874,789. Applicants respectfully traverse this rejection. In order for a combination of references to render a claim obvious, there must be some suggestion or motivation in the prior art to make the proposed combination and each and every element of the claim must be present in the cited prior art. See M.P.E.P. §2143.01 and §2143.03.

Applicants point out that the pending claims recite not only structural elements, but the claims also recite a structural relationship between these structural elements. For example, independent claims 1, 13, 23, 25 and 27 each recite a particular arrangement of structural elements within a device. As one example, claim 1 recites, in part, a laser cutting system attached to a first surface of a base, a linear motor attached to a second surface of a base, and a rotary motor coupled to the linear motor. In order to establish a *prima facie* case of obviousness for claim 1, both the structures that make up the device and the structural arrangement of these structures must be taught or suggested in the prior art. None of the references, either alone or in combination, disclose the arrangement of claim 1 or the arrangement of any of the other claims.

McCoy describes a laser cutting apparatus that includes a rotary and linear movement subassembly (23). McCoy does not disclose the arrangement of a laser and a first or linear motor as recited in claim 1 or any of the other claims. Flanagan appears to show at least one configuration of a laser cutting system; however, again, the particular arrangements recited in claim 1 or any of the other claims of the application are not taught or suggested. Finally, Shedlov discloses a low mass rotary motor assembly that has a gripping mechanism 18. As can be seen in the figures, it does not appear that Shedlov discloses anything resembling the arrangement of claim 1 of any of the other claims.

Again, in order to establish a *prima facie* case of obviousness, the structural relationship between the structural elements in claims 1, 13, 23, 25 and 27 must be taught or suggested in the prior art. The structural relationship that is recited in these claims is simply not taught or suggested anywhere in any of these references, and as such all elements of these claims are not disclosed in the cited references and these claims are allowable over these references.

In spite of the fact that the structural relationships are not taught or suggested anywhere in any of the references, the Examiner has asserted that “it would have been obvious to one of ordinary skill in the art at the time of the invention to use multiple surfaces, as taught by Shedlov in the McCoy system because this is merely a variation of the apparatus layout and would minimize real estate and make the best use of manufacturing space.” See page 4 of the Office Action. Applicants point out at least two flaws in this statement. First, the use of multiple surfaces is simply not what the claims recite. The claims recite specific arrangements of elements, and these specific arrangements must be taught or suggested in the prior art in order for the prior art to render the claims obvious. Again, as one example, claim 1 recites, in part, a laser cutting system attached to a first surface of a base, a linear motor attached to a second surface of a base, and a rotary motor coupled to the linear motor. This arrangement and the arrangements recited in the other claims are simply not taught or suggested in Shedlov or in either of the other two references.

In addition, the Examiner apparently asserted that Shedlov discloses the use of multiple surfaces; however, Shedlov does not appear to teach or suggest the use of multiple surfaces in any manner, much less in the manner recited in the claims. The fact that an object in Shedlov has multiple surfaces cannot be enough to teach or suggest the use of multiple surfaces as recited in the claim set.

Further, even though there is no teaching or suggestion to arrange the parts in the ways recited in the claims, the Examiner cited several cases in an attempt to support the *prima facie* case of obviousness. See page 4 of the Office Action. Applicants respectfully assert that these cases are not analogous to the current case, and therefore cannot be used to render the claims obvious.

The Examiner cited *In re Gazda*, 219 F.2d 449, (CCPA 1955) in which the reversal of parts was held to be obvious. Applicants assert that, for at least two reasons, this precedent does not lead to the conclusion that the claims are obvious. First, the current claims do not appear to be a reversal of parts of any of the cited references or of any combination of these references. Applicants do not see, and it has not been explained in the Office Action, how the parts of McCoy, Shedlov, or Flanagan, or any combination thereof, are a reverse configuration of any of the claimed arrangements. As such, it does not appear that this case law even applies to this situation.

Further, even if this case law did apply, this case still requires “a sufficient suggestion” to make the proposed modification. See *Gazda*, 219 F.2d at 452. In other words, there still must be some suggestion or motivation present in the prior art to make the proposed modification of the prior art. Applicants assert that no such suggestion or motivation exists in the cited prior art to make the proposed modification, and as such the claims are allowable over these references.

The Office Action also cited *In re Japikse*, 37 CCPA 1026, (CCPA 1950), in which the rearrangement of parts was held to be obvious. Specifically, changing the location of a switch in the device in Japikse was held to be obvious because “it was held that there would be no invention in shifting the starting switch ... to a different position since the operation of the device would not thereby be modified.” *Japikse*, 37 CCPA at 1031. In other words, the claim in Japikse was apparently held to be obvious because the rearrangement did not change the operation of the device. Applicants assert that this precedent cannot be used in the current case for at least two reasons. First, none of McCoy, Shedlov, or Flanagan, or a combination thereof, appears to discuss any specific structural arrangement of a laser and one or more motors on a base. As such, the claims cannot possibly be a rearrangement of the devices of McCoy, Shedlov and Flanagan, or any combination thereof.

Further, even if the current claims could be a rearrangement of the devices described in McCoy, Shedlov and Flanagan, the claimed arrangements would change the operation of a laser cutting system. Specifically, the arrangements recited in the claims can have a number of advantages over prior art configurations. In some cases, the arrangements can prevent fluids used in the system or dross that is produced while laser

cutting from getting on the one or more motors and the laser. Other possible advantages are given in the specification, for example in paragraphs [0014] and [0015] of the published application. Thus, because the arrangements of the current claims can change the operation of prior art cutting systems, *In re Japikse* is not controlling precedent in this case.

Further, it was stated in the Office Action that “substitution of a known equivalent” has been held obvious, citing *In re Kuhle* and *In re Ruff*. Especially in light of the possible advantages discussed in the previous paragraph, Applicants do not see how the arrangements of the current claims can be called equivalents of the devices disclosed in the cited prior art. As such, Applicants assert that this case law cannot be used to establish the obviousness of the current claims.

Because none of the cited references, alone or together, disclose the arrangements of the current claims, and because the case law cited by the Examiner does not apply to the current case, Applicants assert that the claims are allowable over the cited references.

Further, Applicants point out that, as outlined in M.P.E.P. §2143, the prior art must also contain a suggestion or motivation to make the proposed combination and there must be some reasonable expectation of success. The Office Action appears to make the conclusory statement that combining the references would be obvious, but neither of these requisites of M.P.E.P. §2143 are discussed in the Office Action.

As one example, the current Office Action does not discuss the source of motivation or suggestion for making the proposed combination. Applicants point out that none of the references discloses such a motivation or suggestion; specifically, because none of the references discloses an arrangement that remotely resembles the claimed arrangements, none of these references could possibly disclose a suggestion or motivation to combine the references in a manner yielding the current claims. In fact, the only possible sources of motivation for making such an arrangement appears to be either the current application or the obvious to try standard, both of which are improper sources of motivation. See M.P.E.P. §2145, Part X. For at least these reasons, Applicants assert that a *prima facie* case of obviousness has not been shown.

Reexamination and reconsideration are requested. It is respectfully submitted that all pending claims are now in condition for allowance. Issuance of a Notice of

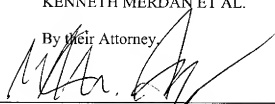
Allowance in due course is also respectfully requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

KENNETH MERDAN ET AL.

By their Attorney,

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